

No. 21-468

In The
Supreme Court of the United States

NATIONAL PORK PRODUCERS COUNCIL, et al.,

Petitioners,

v.

KAREN ROSS, IN HER OFFICIAL CAPACITY AS
SECRETARY OF THE CALIFORNIA DEPARTMENT
OF FOOD & AGRICULTURE, et al.,

Respondents.

**On Writ Of Certiorari To The
United States Court Of Appeals
For The Ninth Circuit**

**BRIEF OF ECONOMIC RESEARCH
ORGANIZATIONS AS *AMICI CURIAE*
IN SUPPORT OF RESPONDENTS**

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INTEREST OF *AMICI CURIAE*

Amici curiae are two organizations that have studied and analyzed the economic implications of California's Proposition 12.¹

Food System Innovations (FSI) is a nonprofit program of Humane America Animal Foundation. FSI is a nonprofit consortium of experts, scholars, and industry participants that conducts social science research on global food systems. FSI seeks to promote global food security and sustainable, humane agricultural practices. FSI's chief executive officer is David Meyer and its chief research officer is Dr. Galina Hale, Professor of Economics at the University of California, Santa Cruz

Intelligent Analytics and Modeling (IAMECON) is an economic think tank and consulting firm based in Austin, Texas, which specializes in advanced predictive modeling. IAMECON was founded in 2018 by Dr. Devrim Ikizler to apply new data methods to solving economic issues in research and litigation. The IAMECON team has expertise conducting research and providing consulting services to the industry in the fields of economics and sustainable food systems, and in animal agriculture.

¹ No party or counsel for a party authored this brief in whole or in part. No party, counsel for a party, or person other than *amici curiae* or their counsel made any monetary contribution intended to fund the preparation or submission of this brief. The parties have consented to the filing of this brief.

Amici submit this brief to assist the Court in analyzing the plausible economic effects that Proposition 12 may have on producers, consumers, and interstate commerce.



SUMMARY OF ARGUMENT

Amici fully endorse the cogent economic assessment offered by the Brief of Agricultural and Resource Economists in Support of Neither Party. As that brief explains, Proposition 12 will affect only a subset of participants in the North American pork production chain, namely, those farmers, wholesalers, and retailers who see economic opportunity in producing and selling Proposition 12-compliant pork products, and California consumers who, fully informed, have already collectively chosen through the political process to bear the costs of that compliance.

Amici file this brief to elaborate on those points and make several additional important points about the economic effects of Proposition 12—in particular, why the measure will benefit both industry and consumers, and why petitioners’ assertions to the contrary are implausible.

First, Proposition 12 will not create significant industry burdens. Producers will only sell Proposition 12-compliant pork in the California market if doing so would be profitable. Some producers—particularly small farms and wholesalers with specialized and

adaptable supply chains will choose to do so, while others will not.

Second, there is significant unmet demand for humane animal products, and customers who value these products are willing to pay a premium for them. Producers have already begun to respond to this demand by offering a variety of niche products, often bearing specialized third-party labels. Laws like Proposition 12 benefit consumers by replacing varied and confusing claims about humane practices with certainty.

Third, while petitioners argue that Proposition 12 poses dire consequences for the pork industry, it is far more likely that it will benefit the industry landscape. Increased product differentiation will satisfy growing consumer demand, provide new market opportunities for smaller farmers, and make the industry more efficient and dynamic.

◆

ARGUMENT

I. Proposition 12 will not create significant industry burdens.

Proposition 12 applies to uncooked cuts of pork that may be sold in California. Covered products must come from sows that have been given at least 24 square feet of space other than during a brief period around farrowing (birth). *See generally* Cal. Health & Safety Code §§ 25990-25994.

Critically, no one outside California is required to comply with Proposition 12. Because Proposition 12 applies only to sales within California, producers may choose to offer compliant products if they decide that doing so would be profitable. In other words, they will do so if they conclude that gaining access to the California market is worth the costs. Petitioners' arguments that Proposition 12 will impose significant burdens on the national pork industry are inconsistent with basic economic principles.

Instead, Proposition 12 will align the quality of pork products demanded by California consumers with the subset of producers who have an economic incentive to provide these products. For participating producers, meeting California demand will create profitable business opportunities. Smaller farms are especially likely to benefit from these opportunities because of the flexibility of their operating model. Moreover, because nationwide consumer trends show increasing demand for humane products, contrary to petitioners' arguments, the solution the markets provide for California may also incidentally benefit other consumers outside of the State. *See generally* Jamie Anne Picardy et al., *Uncommon Alternative: Consumers' Willingness to Pay for Niche Pork Tenderloin in New England.*, 51 *J. of Food Distrib. Rsch.* 61 (2020).

A. Producers will only offer Proposition 12-compliant products if it is profitable for them to do so.

Amici agree with the analysis performed by the UC Davis economists that pork producers already using group housing can easily implement Proposition 12 without significant structural change. *See* Agric. & Res. Econ. Br. 8. Indeed, for smaller operations, removing a single sow from the group space would achieve compliance with Proposition 12. *See id.* at 9-10, 16.

More broadly, market forces will determine which operations choose to offer Proposition 12-compliant products. Those producers who can efficiently prepare their operations for the California market will do so, while those who cannot will not. This may give many small farmers, whose operations are either already consistent with Proposition 12 or who can become consistent at a relatively low cost, a first-mover advantage to further monetize their existing production techniques for the California market. *See* Cal. Dep’t of Food & Agric., Proposed Regulations—Animal Confinement, at 13²; Pork Info. Gateway, Confinement Sow Gestation and Boar Housing (June 3, 2016) (noting that “a confinement system of housing” is primarily used by large producers).³

² https://www.cdffa.ca.gov/ahfss/pdfs/regulations/Animal-Confinement1stNoticePropReg_05252021.pdf (last visited Aug. 9, 2022).

³ <https://porkgateway.org/resource/confinement-sow-gestation-and-boar-housing/>.

On the other hand, many larger producers will not find it profitable to convert some or all of their farrowing operations to satisfy Proposition 12's requirements.⁴ Those producers can continue to target sales outside of California, which constitute 91% of the North American market, as well as the fast-growing exports segment. *See id.* at 9-10 & n.9. In other words, those operations will maintain their status quo with no conversion or additional costs, and continue to supply their products to a vast market outside of California.

For those wholesalers that wish to offer Proposition 12-compliant products to California retailers, the increasingly specialized nature of the pork supply chain will make it easier for them to do so.

The pork industry has been going through transformation and consolidation for decades. The number of farrow-to-finish farms has decreased steadily over time (from more than 50% of operations in 1992 to 23% in 2009) while the number of specialized supply chain players such as contractors and independent growers has increased (from 19% in 1992 to 47% in 2009). William D. McBride & Nigel Key, U.S. Dep't of Agriculture, U.S. Hog Production from 1992 to 2009: Technology, Restructuring, and Productivity Growth 6 (2013). According to the 2017 agricultural census, 43% of all hogs and pigs are processed by a total of 7,672 contract growers who do not actually own the animals but instead are

⁴ The *amicus* brief filed by Dr. Leon Barringer describes the various facilities and stages involved in the pork production process. *See* Barringer Br. 4-12.

contracted on a short-term basis. Nat'l Stat. Serv., U.S. Dep't of Agric., 2017 Census of Agriculture 24 tbl. 23 (2019).

Contractors, by definition, perform services that are in demand and compete based on their ability to respond to the sector's needs at a profitable price. Wholesalers purchase from these contract growers. If a wholesaler stands to profit by entering or remaining in the California market, this structure will allow wholesalers to shift to more readily compliant contract growers without disruption, as that would be the profit-maximizing response. And if at any given time, there are not enough Proposition 12-compliant hogs available for sale, there will be a profit opportunity for contractors to start raising compliant hogs for those wholesalers with the need.

Thus, contrary to petitioners' arguments that Proposition 12 will force steep compliance costs on producers nationwide, traditional market forces will determine which producers choose to enter the California market, and to what extent.

In fact, Randy Spronk, the former president of petitioner National Pork Producers Council and a declarant for petitioner in this case, has since decided to adapt a portion of his farm to offer Proposition 12-compliant products despite previously stating that doing so would be too costly and would cause him to lose business. *See* Greta Kaul, *Why California's new pork rules could mean big changes for Minnesota hog farmers*, Minn. Post (Aug. 6, 2021); Pet. App. 168a, 170a, 330a.

Similarly, Tyson Foods has stated that it “can do multiple programs simultaneously, including Prop 12,” and “can align suppliers, and . . . certainly provide the raw material to service [their] customers in that way.” Conference Call Minutes: Tyson Foods Third Quarter 2021 Earnings 15 (Aug. 9, 2021).⁵

B. California consumers, who overwhelming voted in favor of Proposition 12, will pay the costs of compliant products.

Many producers will bear costs to offer compliant products that meet the welfare standards that California consumers have demanded in Proposition 12. But as economic theory predicts, these producers will be able to recover their increased costs by selling their products at higher prices. *See, e.g.,* Timur Hulagu & Devrim Ikizler, *US Cattle Farms, Externalities and Subsidies: A Computable Two-sector Markov-Perfect Equilibrium Model* (Dec. 8, 2021) (observing that, in the U.S. cattle industry, producers pass increased costs of production almost entirely onto their consumers).⁶ Indeed, egg producers—who already have had to meet Proposition 12’s cage-free requirements in order to sell their products in California—are already passing their costs on to California consumers. Jayson Lusk, *Effects of Prop 12 in California*, JaysonLusk.com (Jan. 28, 2022) (available evidence “suggests Prop 12 is

⁵ https://s22.q4cdn.com/104708849/files/doc_financials/2021/q3/08-11-21_Tyson-Foods-080921.pdf.

⁶ https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3980964.

having significant price impacts on the prices of eggs in California”).⁷

According to fundamental economic theory, when firms are price takers—*i.e.*, when the market dictates their prices, as in the case of perfect competition—they will pass any increased variable costs through to their consumers entirely, as dictated by the $p = mc$ (price equals marginal cost) condition of optimality. Martin Kolmar, *Firm Behavior under Perfect Competition*, in *Principles of Microeconomics* 380 (2022). For the case of the United States pork industry, where there are 64,871 farmers that made sales in 2017, it is expected that farmers are price takers. *See* 2017 Census of Agriculture, *above*, at 24 tbl. 20. This is especially true for smaller farmers who are more likely to offer Proposition 12-compliant products, whereas some very large producers may have partial market power to set their own prices regionally, in the short term. *See* Agric. & Res. Econ. Br. 16 n.13.

II. Proposition 12 is a response to California consumers’ demand for humane animal products.

Consumers are increasingly demanding humane animal products and are willing to pay a premium to obtain these products. Retailers are increasingly responding to these consumer preferences, although there remains substantial unmet demand and current

⁷ <http://jaysonlusk.com/blog/2022/1/19/anticipated-effects-of-prop-12-in-california>.

market responses like labeling are suboptimal. Proposition 12 is itself a reflection of these trends, and provides California consumers with a more efficient market solution.

A. Consumers are increasingly demanding, and are willing to pay a premium for, humane animal products.

Economic theory predicts that market demand inevitably shapes the long-term nature of any industry. As a result of growing consumer preferences for humane animal products generally, there is substantial unmet demand for humanely raised pork. *See* Barringer Br. 21-28. Therefore, economic theory predicts that the focus of the competitive landscape in the animal products market will shift from price-based to quality-based competition, which includes animal-handling practices.

Over time, growing demand for humanely raised products creates a competitive advantage for the producers who comply with increased animal welfare standards. Numerous studies show that consumers increasingly assess product quality on a broad array of attributes, including animal welfare. *See, e.g.,* Spencer Henson & Thomas Reardon, *Private Agri-Food Standards: Implications for Food Policy and the Agri-Food System*, 30 Food Pol’y 241 (2005).

For example, in a 2013 survey conducted by the American Humane Association, when U.S. consumers were asked “What is the biggest factor keeping you

from buying humanely raised products,” the second-most common answer (after “I already buy them”) was that such products are not available. Am. Humane Ass’n, *Humane Heartland: Farm Animal Welfare Survey 13* (2013).⁸ This statistic further demonstrates the unmet demand for humane animal products.

In 2014, a Consumer Reports survey found that “80% of respondents considered better living conditions for farm animals to be important or very important, outranking the use of antibiotics and genetically modified organisms in feed.” Jessica M. Shaw, *What You Really Get for the High Price of ‘Humanely Raised’ Meat*, MarketWatch (June 28, 2016).⁹

Similarly, a 2018 study found that 78% of U.S. consumers are concerned about the welfare of animals raised for human consumption and that 84% think it is somewhat or very important that farms do not confine animals in such a way that they have little to no room to move. See C. Victor Spain et al., *Are They Buying It? United States Consumers’ Changing Attitudes toward More Humanely Raised Meat, Eggs, and Dairy*, 8 *Animals* (Basel) 128 (2018). Additionally, only 45% of U.S. consumers believe the pork industry treats their animals well. *Id.* Importantly, 75% of U.S. consumers “[w]ould like stores to carry a greater variety of

⁸ <https://www.americanhumane.org/app/uploads/2013/08/humane-heartland-farm-animals-survey-results.pdf>.

⁹ <https://www.marketwatch.com/story/what-you-really-get-for-the-high-price-of-humanely-raised-meat-2015-11-19>.

welfare-certified meat, eggs, and dairy products than they currently offer.” *Id.*

Further reflecting these consumer preferences, a 2021 study showed that the sale of products making positive animal welfare claims had increased 27% in the previous two years. Jessi Devenyns, *Organic and Animal Welfare Claims Drive Sales, SPINS Finds*, Food Dive (Sept. 28, 2021).¹⁰ Animal-based product sales as a whole, on the other hand, increased by just 1%.¹¹

In addition, the organic, free-range, and pasture-raised markets all demonstrate there is unmet demand for higher-quality and more humanely raised meat products, and affirm the shift in these markets from price-based to quality-based competition. See Tina L. Saitone & Richard J. Sexton, *Product Differentiation and Quality in Food Markets: Industrial Organization Implications*, 2 Annual Rev. of Res. Econ. 341 (2010); David S. Conner, *The Prospects for Pasture-based Agriculture in Michigan: Overview of Findings* (2007).¹² The enactments of Proposition 12, California’s

¹⁰ <https://www.fooddive.com/news/organic-and-animal-welfare-claims-drive-sales-spins-finds/607268/>.

¹¹ This compound annual growth rate was calculated using USDA disappearance statistics, which cover all consumption, including retail and food services, for all protein sources (meat, pork, poultry, dairy, eggs, veal, fish, etc.). See Econ. Rsch. Serv., U.S. Dep’t of Agric., *Food Availability (Per Capita) Data System*, <https://www.ers.usda.gov/data-products/food-availability-per-capita-data-system/> (last visited Aug. 8, 2022).

¹² <https://www.canr.msu.edu/foodsystems/uploads/files/PastureBasedAgOverview.pdf>.

Proposition 2 in 2008, and Massachusetts' Question 3 are themselves evidence of consumers' demand for more humane animal products.¹³

Not surprisingly, consumers will pay a higher price for products that align with their preferences. A recent study found that, when making purchasing decisions, 75% of U.S. consumers are influenced by the knowledge that an animal did not suffer while being raised on a farm. *See Spain, above*, at 6. The same study showed that 57% of U.S. consumers are willing to pay \$5 or more for restaurant entrees with certified humanely raised animal products. *Id.* at 6-7. The study's findings suggest that U.S. consumers (and particularly millennials) will seek higher welfare products if they trust the labels. *Id.* at 1, 12.

Likewise, a 2009 study showed that consumers are willing to pay more for pork produced without gestation crates. Glynn T. Tonsor et al., *Consumer Preferences for Animal Welfare Attributes: The Case of Gestation Crates*, 41 *J. of Agric. & Applied Econ.* 713, 723-24 (2009). A more recent 2022 study similarly showed that U.S. consumers "are willing to pay, on average, \$2.33 more for pork labeled as pasture-raised."

¹³ Massachusetts Question 3, also known as An Act to Prevent Cruelty to Farm Animals was passed in 2016 with an overwhelming 77.6% of votes. *See Abby Elizabeth Conway, Mass. Voters Approve Question 3, Banning Certain Farm Animal Confinement Practices*, WBUR (Nov. 8, 2016), <https://www.wbur.org/news/2016/11/08/question-three-animal-confinement-results>. The measure requires Massachusetts farmers to provide adequate space for pigs, calves, and chickens. 2016 Mass. Acts, ch. 333.

Bindu Paudel et al., *Consumers' Willingness to Pay for Pork Produced with Different Levels of Antibiotics*, 2 Q Open 1, 10 (2022). The authors also found that, on average, consumers were willing to pay \$1.07 less for pork labeled as coming from confinement operations. *Id.*

Very similar trends can be observed in other markets that have started to transition to higher-quality specialized products. Organic and pasture-raised beef is sold, on average, for a 67% higher price than beef from cattle that were farmed in a confined environment, bringing better marginal profits to the producers. See Lee Schulz, *Organic Beef Captures Price Premiums*, 25 Ag Decision Maker No. 2, at 4 (Dec. 2020) (evaluating 2019 data).¹⁴ Pasture-raised chicken meat and eggs likewise sell for significantly higher prices. See Agric. Mktg. Serv., U.S. Dep't of Agric, National Monthly Pasture Raised Poultry Report (July 29, 2022).¹⁵ Thus, markets have already proven their ability to reward farmers that enhance their farming practices to reflect changes in consumer preferences and who are able to signal their product quality to their customers.

Similarly, across all agricultural products, organic farmers have enjoyed the product differentiation between “organic” and “conventional.” A 2015 study

¹⁴ <https://www.extension.iastate.edu/agdm/newsletters/nl2020/dec20.pdf>.

¹⁵ <https://usda.library.cornell.edu/concern/publications/cj82kn551?locale=en>.

highlights the financial benefits that are collected by organic farmers. David W. Crowder & John P. Reganold, *Financial competitiveness of organic agriculture on a global scale*, 112 Proc. Nat'l Acad. Sci. 7611 (2015). The authors state: "We found that, in spite of lower yields, organic agriculture was significantly more profitable than conventional agriculture and has room to expand globally." *Id.* at 7611.

B. Producers and retailers have begun responding to this consumer demand.

A rational firm will seek to maximize its long-term profits by optimizing its inputs and output (product selection) to account for consumer trends in the marketplace. *See generally* Lynne Pepall et al., *Industrial Organization: Contemporary Theory and Empirical Applications* 91-212 (5th ed. 2014).

Recognizing and validating growing consumer concern and demand for more humane farming practices, dozens of food companies have pledged to discontinue sales or production of gestation-crate pork. These companies include many market leaders in meat production, food service, fast food restaurants, grocery retailers, and cruise lines. These companies are in the business of making money and therefore meeting their clients' demands. Moreover, they have access to first-hand rich data and can see how their customers' demands are changing, and optimize their strategies accordingly.

The implications are clear: producers and retailers are responding to the unmet demand for higher-animal-welfare products.

A collection of company commitments is summarized below, some of which reference Proposition 12, while others are broader statements regarding the use of gestation crates and animal welfare concerns generally, and were made as far back as 2012.

Meat Producers	
Company	Commitment
Tyson ¹⁶	“Prop 12, it’s about 4% of total production. . . . Tyson is currently aligning incentivizing suppliers where appropriate. We can do multiple programs simultaneously, including Prop 12. So . . . we can align suppliers, and we can certainly provide the raw material to service our customers in that way.”
Cargill ¹⁷	“Before we sold our pork business in 2015, we led the industry in removing gestation stalls to house pregnant sows.”

¹⁶ Conference Call Minutes: Tyson Foods Third Quarter 2021 Earnings, *above*, at 15.

¹⁷ Cargill, On the Issues: Animal Welfare, https://www.cargill.com/cs/Satellite?c=CGL_Profile_C&childpagename=CCOM%2FCGL_Profile_C%2FCCOM%2FCCOM_IssueProfile%2F1ColumnLayout&cid=1432077190320&pagename=CCOM_Wrapper (last visited Aug. 9, 2022).

Smithfield ¹⁸	Smithfield has stated it “will comply with” Proposition 12 and “ensure the continuity of [its] pork supply in California.”
Hormel ¹⁹	“Hormel Foods has assessed Proposition 12 and Question 3, and while we are still awaiting final clarity on specific details and rules, the company is preparing to fully comply when these laws go into effect on January 1, 2022. The company’s Applegate portfolio of products already complies with Proposition 12 and Massachusetts Question 3.”

Food Service Providers & Fast Food Restaurants	
Company	Commitment
Aramark ²⁰	“Aramark maintains our commitment to eliminate gestation crates from our supply chain and to work with

¹⁸ Smithfield, 2021 Sustainability Impact Report 22, <https://www.smithfieldfoods.com/getmedia/7ecf12e2-da3b-4d31-8796-d07e38b39e51/2021-Sustainability-Impact-Report.pdf>.

¹⁹ Hormel Foods, Company Information about California Proposition 12, <https://www.hormelfoods.com/newsroom/news/hormel-foods-company-information-about-california-proposition-12/> (last visited Aug. 9, 2022).

²⁰ Aramark, ESG, Source Responsibly, <https://www.aramark.com/environmental-social-governance/climate-impact/source-responsibly> (last visited Aug. 9, 2022).

	supplier partners towards this goal. We continue to make progress to achieve 100% of our U.S. contracted pork to reduced crate by the end of 2022. As of December 2021, we are on track to be nearly 100% reduced-crated pork by the fall of 2022.”
McDonald’s ²¹	“McDonald’s believes gestation stalls are not a sustainable production system for the future. There are alternatives that we think are better for the welfare of sows.”
Starbucks ²²	“Starbucks is phasing out the excessive use of gestation stalls for the sows (mother pig) in our supply chain by 2030. The excessive use of gestation stalls would include stalls where gestating sows do not have the ability to turn around. This commitment extends to all Starbucks branded products, including those supplied to our licensee business partners in the U.S. and Canada.”

²¹ Press Release, McDonald’s, McDonald’s Takes Action Toward Ending Gestation Stall Use (Feb. 13, 2012), https://corporate.mcdonalds.com/corpmcd/en-us/our-stories/article/ourstories.gestation_stall.html.

²² Press Release, Starbucks, Animal Welfare-Friendly Practices (last updated Dec. 20, 2021), <https://stories.starbucks.com/press/2018/animal-welfare-friendly-practices/>.

<p>Restaurant Brands International (Burger King, Popeye's, Tim Hortons)²³</p>	<p>“At RBI, we’re working in partnership with our vendors to drive continuous improvement of animal welfare practices in our supply chain, including the housing of sows and piglets. Our brands are committed to eliminating the use of gestation crates for housing pregnant sows in our supply chain globally. We have achieved compliance in our European and African markets and will follow in the US, Canada, Australia and New Zealand by 2022, covering 95% of our global pork volumes. The remaining 5% will be compliant in Latin America by 2025, in Russia & CIS by 2030 and in Asia Pacific by 2035 or sooner.”</p>
<p>Wendy’s²⁴</p>	<p>Wendy’s has committed to “eliminating the use of sow gestation stalls in our North American supply chain by the end of 2022,” and to reach this goal the company is “working with suppliers and farmers who have committed to an intensive traceability protocol, supporting our goals to track, trace, monitor and report on animal medical treatment histories.”</p>

²³ Restaurant Brand Int’l, Animal Health & Welfare, <https://www.rbi.com/sustainability/responsible-sourcing/animal-welfares/> (last visited Aug. 9, 2022).

²⁴ Wendy’s, 2020 Corporate Responsibility Report, https://www.wendys.com/sites/default/files/2021-04/Wendys-2020-CSR-0419_FINAL.pdf.

Retailers	
Company	Commitment
Kroger ²⁵	“We recognize that sows in the pork industry may experience negative health and behavioral impacts when housed in gestation stalls (also known as gestation crates) during pregnancy, and that group housing is a viable alternative. As a result, Kroger began asking our fresh pork suppliers to transition away from gestation stalls to group housing or free-range environments prior to birthing. Many of our fresh pork suppliers are already making this transition away from gestation crates or have time-bound commitments to make this transition. By 2025, Kroger will source 100% of fresh pork from suppliers and farms that have transitioned away from gestation stalls.”
Albertsons ²⁶	“As a grocer, providing what our customers want is at the heart of all the decisions we make. Simply put, we want to run really great stores where customers love to shop and can find

²⁵ The Kroger Family of Cos., Animal Welfare Policy, https://www.thekrogerco.com/wp-content/uploads/2018/07/The-Kroger-Co_AnimalWelfarePolicy_2018-July.pdf (last visited Aug. 9, 2022).

²⁶ Albertson’s Cos., Animal Well-Being, <https://www.albertsonscompanies.com/our-impact/products/animal-well-being/default.aspx> (last visited Aug. 9, 2022).

	the products they want, and part of that philosophy includes responsibly increasing the quantity of pork we source from vendors that have made commitments to transitioning to group-housed systems for their breeding sows. As our company has grown, we have also expanded the availability and quantity of our Open Nature® pork products, which come exclusively from group-housed sow sources”
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Cruise Lines	
Company	Commitment
Royal Caribbean ²⁷	Royal Caribbean, Norwegian, and Carnival all published an updated animal welfare policy, which includes a “glidepath” for phasing-up to 100% fully gestation crate-free pork globally, reaching:
Norwegian ²⁸	
Carnival ²⁹	
	<ul style="list-style-type: none"> • 15% gestation crate-free pork by 2022. • 40% by 2023. • 70% by 2024. • 100% by 2025

²⁷ Royal Caribbean Grp., Seastainability 2021, <https://sustainability.rclcorporate.com/download/fact-sheet/supply-chain/>.

²⁸ Norwegian Cruise Line Holdings, Animal Welfare, https://dlio3yog0oux5.cloudfront.net/_c09238880e6b0fa3e61ae96e8f874c0f/nclh ltd/db/1167/11198/file/NCLH+Animal+Welfare+Commitments+FINAL_website.pdf (last visited Aug. 9, 2022).

²⁹ Carnival Corp., Animal Welfare, <https://carnival-sustainability-2021.nyc3.cdn.digitaloceanspaces.com/assets/content/pdf/Animal-Welfare.pdf> (last visited Aug. 9, 2022).

C. Laws like Proposition 12 benefit consumers by replacing confusing claims about humane practices with certainty.

In recent years, producers increasingly have responded to consumer demand for humanely raised products through labeling and other signaling mechanisms. Producers can enhance their practices, obtain audits of their operations, and obtain quality labels from third-parties. *See generally* Kar Ho Lim & Elina T. Page, U.S. Dep’t of Agric., Consumers’ Interpretation of Food Labels with Production Claims Can Influence Purchases (March 7, 2022).³⁰

The pork industry, for example, already applies a variety of advanced third-party animal welfare labels to differentiate products according to the quality standards used in raising pigs, such as “organic,” “pasture-raised,” and “antibiotic-free.” *See, e.g.*, Nat’l Ctr. for Appropriate Tech., Tipsheet: Organic Pig Production (2015)³¹; Agric. Marketing Serv., U.S. Dep’t of Agric., National Monthly Pasture Raised Pork Report (July 29, 2022)³²; John F. Patience & Alejandro Ramirez, *Strategic Adoption of Antibiotic-Free Pork Production: The Importance of a Holistic Approach*, 6

³⁰ <https://www.ers.usda.gov/amber-waves/2022/march/consumers-interpretation-of-food-labels-with-production-claims-can-influence-purchases/>.

³¹ https://www.ams.usda.gov/sites/default/files/media/Organic%20Pig%20Production_FINAL.pdf

³² <https://www.ams.usda.gov/mnreports/lsmnprpork.pdf>

Translational Animal Science 1-44 (2022) (advance access publication).³³

The quality assurance provided by third-party labels, however, is expensive and neither efficient nor sufficient to meet consumers' expectations.

For example, animal welfare is among the values that drive consumers to buy organic food. Lella Hamzaoui-Essoussi & Mehdi Zahaf, *Decision Making Process of Community Organic Food Consumers: An Exploratory Study*, 25 *J. of Consumer Mktg.* 95, 103 (2008). But “organic” is just one type of label among many that has specific requirements, and consumers may not know exactly what these various labels signal with respect to animal welfare.

In addition, it is costly for a consumer to sift through the available labels to find those that align with their preferences. Nobel prize winner Daniel Kahneman shows that people avoid processing

³³ For an overview of third-party pork labels see ASPCA, Understanding Pork Labels, <https://www.aspc.org/shopwithyourheart/consumer-resources/meat-eggs-and-dairy-label-guide/understanding-pork-labels> (last visited Aug. 8, 2022). The beef industry uses “pasture-raised,” “grass-fed,” and “organic” labels. See Kenneth Matthews & Rachel Johnson, U.S. Dep’t of Agric., *Alternative Beef Product Systems: Issues and Implications* (April 2013), https://www.ers.usda.gov/webdocs/outlooks/37473/36491_ldpm-218-01.pdf?v=3211.4. Similarly, consumers have a range of egg options, such as “cage-free” and “pasture-raised.” Rex Barnes, *Eggstra! Eggstra! Learn All About Them*, U.S. Dep’t of Agric. blog (Feb. 21 2017), <https://www.usda.gov/media/blog/2012/04/06/eggstra-eggstra-learn-all-about-them#:~:text=Eggs%20labeled%20%22cage%2Dfree%20with%20access%20to%20outdoors>.

information whenever possible. Daniel Kahneman, *Maps of Bounded Reality: Psychology for Behavioral Economics*, 93 *Am. Econ. Rev.* 1449 (2003). Similarly, multiple labeling regimes may make it more difficult for consumers to differentiate among the various welfare certificates. Jayson J. Lusk & Stéphan Marette, *Can Labeling and Information Policies Harm Consumers?*, 10 *J. of Agric. & Food Indus. Org.* 1, 1-2 (2012). Indeed, too much information can paradoxically lead to consumer ignorance. Jill J. McCluskey & Johan F.M. Swinnen, *Political Economy of the Media and Consumer Perceptions of Biotechnology*, 86 *Am. J. of Agric. Econ.* 1230, 1233 (2004). And the time consumers spend searching for the relevant information amounts to an added cost for them. Yvette Salaün & Karine Flores, *Information Quality: Meeting the Needs of the Consumer*, 21 *Int'l J. of Info. Mgm't* 21, 23 (2001).

It is thus more efficient and less costly (for both producers and consumers) to regulate preferred animal welfare conditions for products sold in a specific market. This is precisely what Proposition 12 achieves for California consumers.

III. Increased product differentiation is a healthy industry trend and will provide new market opportunities.

As industries evolve through technological change and respond to trends in consumer preferences, it is a natural part of the competitive process for firms to innovate and differentiate themselves from their

competitors. Doing so can help a firm gain competitive advantage and an increased market share. Allan N. Afuah & James M. Utterback, *Responding to Structural Industry Changes: A Technological Evolution Perspective*, 6 *Indus. and Corp. Change* 183, 184-85 (1997). Farm consolidation has happened exactly in that manner, allowing the most efficient farmers to develop farming methods that allow them to reduce costs, produce higher levels of output, and grow their market shares over time.

Consolidation in the pork industry is a long-running trend and is by no means novel. In fact, most industries consolidate over time as they mature. Graeme K. Deans et al., *The Consolidation Curve*, *Harv. Bus. Rev.* (Dec. 2002). According to a 2013 USDA report, the number of U.S. hog farms declined by more than 70% from 1992 to 2009 (and continued afterwards) while hog inventories remained stable. *See* McBride & Key, *U.S. Hog Production*, *above*, at 10. Pork production today is mainly dominated by large operations. The largest 40 producers accounted for two-thirds of all sows, Betsy Freese, *Pork Powerhouses 2019: Expansion Continues*, *Successful Farming* (Oct. 1, 2019), whereas small and medium hog farms (up to 1,000 hogs) produced less than 3% of all hogs in the U.S., *see* 2017 *Census of Agriculture*, *above*, at 24 tbl. 21. Similarly, small farrow farms (farrow-to-wean, farrow-to-finish, and farrow-to-feeder operations with inventories up to 100 hogs) only produced 1.5% of all hogs in farrow operations in 2017. *Id.* at 25 tbl. 25.

These structural changes contributed to substantial productivity gains, likely resulting in lower domestic pork prices and enhancing the competitive position of U.S. producers in international markets. But consolidation exacted a different price. As producers focused on efficiency, animal welfare degraded.

Today, extreme animal confinement increasingly does not meet the quality standards that many consumers desire, and the industry has started to evolve to meet these consumer demands. As described above, some producers have already begun to differentiate and label their products in response to these trends. There is no reason to believe the industry response to Proposition 12 will be any different.

Petitioners nonetheless argue that “smaller sow farms may not be able to bear” the cost of “spending additional capital to reconstruct their sow housing and overcome the productivity loss that Proposition 12 imposes.” Pet. Br. 15. According to petitioners, small farms will thus be forced to exit the market, leading to further industry consolidation. *Id.* This argument defies common sense and economic reality.

Small family farmers—*i.e.*, independent farmers with limited herd size—are less likely to use extreme confinement in the first place and are therefore more likely to already be creating Proposition 12-compliant products. *See above* Section I.A. Those operations will now be able to sell their products to the California market, with a price premium.

As noted in a 2006 study, small farmers are the ones that are already providing the high-quality “niche” pork products that consumers increasingly prefer:

Many US consumers of pork are interested in issues concerning the environment, food safety, pig welfare, and pig farm ownership and structure. These consumers may be willing to pay more for pork from farmers who are also concerned about these issues. Small- and medium-sized swine farmers are active in pork niche markets. Niche markets claim product differentiation by superior or unique product quality and social attributes. . . . Niche pork markets and alternative swine production practices offer an unusual contrast to commodity pork markets and industrial confinement swine production.

Mark S. Honeyman et al., *The United States Pork Niche Market Phenomenon*, 84 *J. of Animal Sci.* 2269, 2269 (2006).

And if not already equipped to make Proposition 12-compliant products, it will generally be easier and less expensive for small farms to make the upgrades necessary to compete in the California market. Small farms have less capital invested compared to larger farms and large packers. It is well-documented in the economics literature and investment theory that capital adjustment costs are convex in the quantity of capital to be adjusted. *See generally* Charles Holt et al., *Planning Production, Inventories, and Work Force* 72

(1960). In other words, it should be much easier for non-compliant small farms to adjust capital (per unit of capital to be adjusted) compared to larger ones.

Similar developments have been shown in a computable model of U.S. cattle farms, where as a result of imposing minimum space requirements, small farmers who already use more humane farming techniques benefit. *See* Hulagu & Ikizler, *above*, at 20. This reflects a competitive market where suppliers compete with each other to better serve shifting consumer demands.

Contrary to petitioners' dire predictions, regulatory efforts like Proposition 12, which reflect growing consumer preferences, will keep the pork industry competitively healthy and dynamic, encouraging inefficient producers to exit the California market and allowing more effective new producers to enter. *See generally* Franco Malerba & Luigi Orsenigo, *The Dynamics and Evolution of Industries*, 51 *Indus. & Corp. Change* 51 (1996).

* * *

The predictable economic impacts of Proposition 12 are limited and unsurprising. Some producers—in particular, smaller farms and those operations that already use or can easily adopt more humane practices—will rationally choose to produce compliant products in order to access the premiums that California consumers are willing to pay. Other producers will rationally choose to continue their current practices and sell their products to the rest of the North American market and beyond. Contrary to petitioners' dire predictions of

market harm, consumers stand to benefit from increased product differentiation that is better aligned with their preferences and a more dynamic and competitively healthy pork industry.



CONCLUSION

The judgment of the Court of Appeals should be affirmed.

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